

# **ONLINE LEARNING AND THE AMERICAN WORKFORCE**

**Testimony of A. Frank Mayadas, Program Director,  
Alfred P. Sloan Foundation**

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## **INTRODUCTION**

Many Americans would benefit from access to courses and degrees in higher education, and at the same time continue their responsibilities in the workplace and to their families. For many, such an opportunity is a necessity for competing effectively in the global economy by learning new skills or upgrading existing ones.

That opportunity is made possible today by online education, now being provided by over 1,000 accredited institutions. This includes schools such as Stanford, Penn State, University of Texas and the University of Illinois; smaller ones such as Pace University in New York, and Lesley College in Massachusetts; and community colleges such as Kirkwood in Iowa, Northern Virginia Community College, and Rio Salado in Arizona. Today there are over 2.5 million people taking such courses, mostly for credit, and they are being taught by over 100,000 faculty. Online education opportunities allow learning in a wide range of subjects at a place and at a time of the learner's choosing. Courses span a wide range of subjects from Masters and Bachelors and Associates degrees in Biology or Engineering and Computer Science to courses directly aimed at specific industries such as Associate degree in Telecommunications emphasizing installation and repair. For more on the schools involved and the courses available see the catalog at <http://www.sloan-c.org/>

With over a decade of large- scale experience behind it, online education is no longer an experiment, it is a proven way of learning. There is an opportunity today to expand it to an even larger scale that can have a national impact.

## **ONLINE LEARNING**

The availability of the Internet has completely transformed what can be done by distance learning. While many think of online learning as a self-learning exercise from the equivalent of a textbook or other material online, today's reality is entirely different and far more effective. Online learning has in fact evolved to directly imitate the traditional classroom.

After all, what are the elements of the higher education classroom learning? First there is the Professor. He or she leads the class, sometimes

writing, sometimes showing slides, and sometimes responding to questions. This person, also, if you persist and have good timing, can also sometimes be found in his or her office for a one-on-one discussion.

The second element is the course material. Sometimes this is available in the form of a textbook, sometimes in the form of references; sometimes you just listen and take notes. The third element is classmates. They help both in and out of class. They provide an element of shared experience, and they are people with whom both the course content and what the professor meant can be discussed between classes. They also provide important emotional support.

Today it is possible to provide a workable form of these three elements electronically, without a campus, without a classroom, and without the necessity for the learner to be at some fixed place or a set time when a lecture is being given. Through the Internet we can access course material, put there by the Professor. This can be a video portion of a lecture and slides stored electronically, or it can be text covering the same material. Through the Internet we can interact with the professor by electronic mail. Through the Internet we can discuss with our classmates, even though we have never seen them, the course material and things that are obscure. We can, for example, send an e-mail message to our classmates: "I'm baffled - can anyone do the problem on page 13?"

This learning can be done from home, or from the workplace and it can be done early in the morning, during a lunch break, late at night, or even from a hotel room. Most importantly *it is compatible with continuing to earn a living at the same time* and therefore it is not limited to people in the traditional student years. It is available to the American Workforce.

Furthermore it works. A majority of the over one thousand chief academic officers at accredited colleges and universities, who responded to an annual survey repeated their belief that online education is now equivalent to classroom instruction. Just under 2.5 million learners enrolled in at least one class online for the fall 2004 term (or roughly 11% of all students in accredited degree-granting institutions), and the growth in enrollments remains stable at 400,000 each year.

Is it cost-effective? Very much so. Once a course has been converted into online form, the cost to deliver the course (the cost to the providing university), or the cost to receive the learning (the cost to a learner) is always lower. Course updates are made quickly and inexpensively by the person teaching the course, and such updating requires no software programming.

#### LARGE SCALE USAGE IS ALREADY HERE

The largest on-line learning efforts in the country, among traditional non-profit institutions, are: University of Maryland (over 100,000 learners) and SUNY (State University of New York - SUNY Learning Network with over 100,000 learners). University of Illinois with 30,000 enrollments is also a leader among the publics. Community colleges are serious participants as well: e.g. Rio Salado Community College is now at around 30,000 on-line

enrollments. Among the elite private institutions, only Stanford is much of a presence (with enrollments of about 4,000, mainly in their graduate engineering programs). A great variety of other institutions are also performing well. For instance, Pace University of New York, enrolls approximately 6,000 students in online or blended courses, very good for an institution with a total student body of 14,000. A small campus of the University of Illinois (Springfield) is converting all their courses and degrees into online learning. Among the for-profit institutions the University of Phoenix is the leader with online enrollment exceeding 100,000. There is even a School of Law (Concord) and a successful Tribal College (Salish-Kootenai in Montana).

## **THE AMERICAN WORKFORCE**

As American industries continue along the path towards greater globalization, it becomes increasingly important for America to have a workforce with current state-of-the-art skills and for this workforce to be able to evolve and to develop new skills as demanded by the workplace and by global competition. Online learning offers that possibility and it does so in a diverse range of disciplines, and in a fashion that conforms to the busy schedules faced by modern workers.

Some examples out of many online work-related programs: an A.S. degree (telecommunications) offered by Pace University which has strong support from Verizon, AT&T, Qwest and Citizens; three A.A.S. degrees (electrical power generation, distribution and nuclear power) offered by Bismarck State College; an A.S. in Aviation Maintenance offered by Embry-Riddle University in Florida; and many bachelors and masters by well-known institutions such as University of Michigan (M.S. in Automotive Engineering), Carnegie Mellon (M.S. in Information Technology) and Kansas State (Software Engineering).

## **THE FEDERAL GOVERNMENT AND EDUCATION**

The Federal government has a history of driving changes in education. One example is the legislation that established Land Grant colleges. Another is the GI Bill of Rights originally known as the "Servicemen's Readjustment Act of 1944". This became law in a scant 6 months in spite of misgivings of Congress (too expensive) and educators (will dilute education quality). The original program ended in 1956, having trained some 7.8 million, including 2.2 million in colleges.

The Federal government acted quickly when an opportunity was perceived in 1944 and the GI Bill followed. There is an opportunity today, though of a different sort. A large-scale program could offer the American workforce an opportunity to upgrade skills through education and training. Appropriate eligibility requirements and conditions for receiving education grants would have to be determined. But there is an enormous potential here.

One way to realize that potential would be to launch a new version of the GI Bill, perhaps initially just by expanding and broadening the scope of existing student aid programs such as Pell Grants, federal loans, and Workforce Investment Act (WIA) monies. Restrictions built into most of these programs, make it difficult for working adults to access these, and such restrictions could be relaxed.

Another would be to be initiate a federal grants program to encourage institutions of higher education to develop many, many more online certificate and degree programs. Our extensive experience is that a new course can usually be launched for about \$5,000, and in some cases for \$2,000.

The possibilities opened up by online learning are wide-ranging and immediate. There appear to be cost-effective ways to build even greater scale onto the strong foundation that is already in place.